

CLAIMS

1. A reversibly immortalized human pancreatic islet cell line or a passage cell line thereof, containing an hTERT gene and an SV40T gene each interposed between a pair of LoxP sequences, the cell line being capable of producing insulin and enhancing expression of insulin after excision of the hTERT gene and the SV40T gene.

2. The reversibly immortalized human pancreatic islet cell line or the passage cell line thereof of Claim 1, wherein said reversibly immortalized human pancreatic islet cell line is NAKT-13 (deposited with International Patent Organism Depository, National Institute of Advanced Industrial Science and Technology, address: AIST Tsukuba Central 6, 1-1, Higashi 1-Chome, Tsukuba-shi, Ibaraki-ken, 305-8566 Japan, deposited date: September 4, 2003, accession number: FERM BP-08461).

3. A human pancreatic islet cell obtainable by excising the hTERT gene and the SV40T gene from a reversibly immortalized human pancreatic islet cell line or a passage cell line thereof of Claim 1.

4. A therapeutic agent for diabetes, comprising a human pancreatic islet cell obtainable by excising the hTERT gene and the SV40T gene from a reversibly immortalized human pancreatic islet cell line or a passage cell line thereof of Claim 1.

5. A method for producing insulin, comprising utilizing a reversibly immortalized human pancreatic islet cell line or a passage cell line thereof of Claim 1, or a human pancreatic islet cell of Claim 3.